

INTERN Survey - Students

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Background

Fostering the growth of a globally competitive and diverse research workforce and advancing the scientific and innovation skills of the U.S. is a strategic objective of the National Science Foundation (NSF). U.S. global competitiveness depends critically on the readiness of the Nation's Science, Technology, Engineering and Mathematics (STEM) workforce and NSF seeks to continue to invest in programs that directly advance this workforce. With rapidly accelerating changes in technology-driven global and national economies, today's graduate students will have a wide choice of career paths to pursue over their professional lives.

NSF's 2020 Science and Engineering Indicators Report reveals 81 percent of master's level STEM graduates and 57 percent of doctoral degree holders in STEM, work in industry or government. Graduate students have the potential to make important contributions in careers outside academia, in organizations that include: startup businesses, small and large corporations, government agencies, and non-profit organizations.

The INTERN Program was designed to provide graduate students supported by NSF grants with training opportunities to develop skills that prepare them to be successful for a broad range of academic and non-academic career paths. In addition to deep and broad preparation in their technical areas of expertise, experience working in collaborative teams and with diverse individuals, skills and knowledge in communication, innovation and entrepreneurship, leadership and management, policy and outreach are becoming increasingly valuable for all sectors of the workforce.

This survey is designed to get feedback from student participants of the INTERN Program and learn more about their experiences. The questionnaire is structured in way that information are queried at different time phases, namely: before, during, and after the internship. **Please note: your individual responses will remain confidential. Any information—be it for internal use or public release (e.g. in the form of statistical summaries) - will be in a form that does not personally identify you or other respondents.** The primary use of the data collected is to inform and enhance the NSF INTERN Program, so to allow NSF to better serve its community and stakeholders. **Therefore, your responses will not in any way adversely affect you, or the PI, on any current, pending, and/or future funding decisions.**

Instructions.

The survey is designed and structured in a way to take the respondents—who were participants of the NSF INTERN Program—back in time through the entire internship. We ask that when answering questions from various time periods of the internship (pre, during, and post-), try to think back and recall, as best as you can, events that had occurred and reflections that you had experienced around that time.

Section 1. NSF INTERN Program Participant

This section asks for your name, ORCID (if you have one), academic institution, enrollment status, field of study, and the type of research degree you are currently pursuing/had pursued. Please note: the collection of participant name, ORCID, and academic institution are used solely for data quality control, to ascertain and assure that we are collecting information from the correct program participant.

1-1. Name (Last, First):

1-2. [ORCID](#) (if you have one):

1-3. Academic Institution:

1-4. Type of Research Degree:

1-5. When did you start the research degree that you selected above?

Degree started: Month Year

1-6. When was the research degree granted or when do you expect it to be granted?

Degree granted or expected: Month Year

1-7. Primary field of study:

Section 2. Logistics about the Internship

This section asks questions about how you came to know about the program and the internship duration.

2-1. How did you *first* learn about the NSF INTERN program?

Select one

- Your Principal Investigator (PI)
- University/Academic Department Announcements
- NSF Outreach Activities
- Conferences/Seminars
- Personal or Professional Networks
- Industry (host) Organizations
- Web Search
- Social Media
- Others (please specify)

2-2. When did you start your internship and when was the internship completed?

Month/year started: Month Year

Month/year completed: Month Year

2-3. Name of the principal investigator that requested the INTERN supplemental funding

(Last name, First Name):

2-4. How did the internship process get started? Specifically, who initiated and catalyzed the connection with the host organization?

Select all that apply

- Principal Investigator
- Yourself (as the Student)
- Academic department(s) at your home institution
- Career Center and/or other resources at your home institution
- Others (please specify)

Section 3. Host organization

This section asks questions about the name, type, and geographic location of the host organization, as well as the name and job title of your mentor/supervisor at the host organization.

3-1. Please provide the name of the host organization and geographic location (state) where you worked during the internship. Please use the full organization name and avoid acronyms.

- a. Organization Name:
- b. State:

3-2. Which of the following business sectors best describes the host organization in Question 3-1?

Select one

Government

- U.S. federal government (including National Laboratories but excluding museums, science centers)
- U.S. state government
- U.S. local government

Private Sector

- For-profit company, organization, or think-tank (**excluding** medical organizations)

Non-profit Sector

- Nonprofit organization, or think-tank (including charitable organizations and private foundations)

Medical Organization

- University-affiliated research institute, hospital, and medical/science center
- Hospital, medical care facility, community health system (not affiliated with a university)

FFRDC (see list here: <https://www.nsf.gov/statistics/ffrdclist/>)

- Federally Funded Research and Development Center (FFRDC)

Museums/Science Centers

- Museum or Science Center

Small Businesses

- Startup company or Small business

Others

- Others – please specify

Section 4. Internship Phase

The questions in this section ask about your work activities during the internship.

4-1. What were your primary and secondary work activities?

For each activity: Select one in each column

Work Activities	Primary	Secondary	Not Applicable
Basic Research <i>study primarily directed toward gaining scientific knowledge</i>			
Applied Research <i>study directed toward gaining scientific knowledge to meet a recognized need</i>			
Development <i>using knowledge gained from research for the production of materials or devices</i>			
Design (of equipment), processes, structures, models			
Production, operations, maintenance <i>e.g., chip production, operating tools</i>			
Computer programming, systems and/or applications development			
Professional Services <i>e.g. consulting, engineering, IT, financial or legal services</i>			
Management or Administration			
Other – please specify <input type="text"/>			

4-2. To what extent were these work activities related to the field of your graduate study?

Select one

- Closely related
- Somewhat related
- Not related

4-3. Did these work activities allow you to *apply the academic knowledge you learned in graduate school*?

- Yes
- No

4-4. Did these work activities allow you to utilize the technical skills you acquired in graduate school?

- Yes
- No

The next questions ask about the kind of job training you received during the internship.

4-5. Did the host organization provide any job training prior to, and/or during your internship?

- Yes
- No

4-6. [If 'Yes' to Question 4-5] Which of the following job training did you receive?

Select all that apply

- Technical Skills (e.g. new equipment, software, programming language, machinery, technique)
- Safety
- Communication
- Leadership/Management
- Entrepreneurship
- Intellectual Property
- Research Ethics
- Career Exploration
- Conflict Resolution
- Workplace Harassment
- Other, please specify

The next questions ask about the level of interaction/engagement that you had with your mentor (supervisor) at the host organization. Please note, these questions were designed with the assumption that your mentor is also your supervisor, thus both terms are used interchangeably. In other words, if you only had a supervisor but not mentor, substitute the word *supervisor* in places where *mentor* appears.

4-7. For the internship, were you assigned to a mentor (supervisor)?

- Yes
- No

4-8. [If 'Yes' to Question 4-7] At the beginning of the internship, did you and your mentor (supervisor) have a plan outlining all the projects, goals, and responsibilities that you were set to achieve?

- Yes
- No

4-9. [If 'Yes' to Question 4-7] On average, how often did you meet with your mentor (supervisor) to discuss about work? (Do not count lab and departmental/divisional meetings.)

Select one

- Daily
- 2-3 times a week
- Once a week
- As needed
- Never

4-10. During the internship, how often did you collaborate with colleagues within the host organization?

- Very often
- Often
- Occasionally
- Rarely
- Never, or almost never

4-11. During the internship, did you get to present your work (such as giving a Poster, seminar, and/or webinar) internally within the host organization?

- Yes
- No

4-12. During the internship, did you get to present your work externally in conferences, meetings, symposia, and/or tradeshowes?

- Yes
- No

4-13. How did the following aspects of the internship compare to your expectations?

a. Increase your knowledge/subject matter expertise

- More than expected
- As expected
- Less than expected
- Not applicable

b. Develop transferrable skills (i.e. communication, safety, management, leadership)

- More than expected
- As expected

- Less than expected
 - Not applicable
- c. Broaden your understanding in how industrial research is conducted**
- More than expected
 - As expected
 - Less than expected
 - Not applicable
- d. Innovate marketable products and/or technologies**
- More than expected
 - As expected
 - Less than expected
 - Not applicable
- e. Collaborate with colleagues other than your mentor/supervisor within the host organization**
- More than expected
 - As expected
 - Less than expected
 - Not applicable

Section 5. Post-Internship Phase

In this section, we ask you to think back 3 to 6 months after you completed the NSF INTERN Program.

The following two questions pertain to any publications and/or intellectual property (IP) activities resulting from your internship work/projects.

5-1. Did you publish, or will you be publishing, the results from your internship work?

- Yes
- No

5-2. Did any of the following IP activities take place as a result of your internship work?

Select all that apply.

- Invention Disclosure
- Copyright
- Licensing Agreement
- Patent Application
- Patent
- Other

Graduate Research

The following questions ask about whether any changes in your graduate research were made as a result of your internship.

5-3. Based on what you have learned in the internship, did you make any changes to the scope of your graduate research projects?

- Yes
- No

5-4. [If 'Yes' to Question 5-3] The changes to the scope were made so to...:

Select all that apply.

- Incorporate a new technique
- Increase the breadth of your research questions
- Increase the depth of your research questions
- Scale up the production
- Tailor for new potential uses/applications
- Other

5-5. To what extent did the internship impact your graduate research?

- A significant benefit to my graduate research
- A slight benefit to my graduate research
- No impact on my graduate research
- A slight detriment to the progress of my graduate research
- A significant detriment to the progress of my graduate research

Career Exploration

One of the objectives of the INTERN program is to provide experiential training opportunities to graduate students to develop skills that prepare them to be successful for a broad range of academic and non-academic career paths. The following questions pertain to whether the internship experience has helped you to form career decisions.

5-6. As a result of your internship, have you considered new career alternatives—ones that you have not previously considered?

- Yes
- No

5-7. Did the internship help provide some clarity in your career decision, especially one that is between academic and non-academic careers?

- Yes
- No
- Uncertain at the moment

5-8. Would you be more inclined to pursue a career in...?

Select one

- Academia
- Industry
- Non-profit
- Startup
- Others

Post-graduation plans [Only for Rs that are expecting their degree within the next 6 months and those who have graduated]

5-9. What best describes the status of your postgraduate plans?

Select one

- I accepted or began a postdoc or other training position.
- I accepted a tenure-track or non-tenure-track faculty position
- I am negotiating an offer of employment with one or more specific organizations
- I am seeking a position but currently have no offer of employment
- I am enrolling a full-time degree program (e.g., PhD, MD, DDS, JD, MBA, etc.)
- I do not plan to work or study
- Other-specify

5-10. Were you offered a position at the host organization?

- Yes
- No

5-11. [If 'Yes' to Question 5-10] How likely or unlikely would you accept the offer from the host organization?

- I have already accepted the offer
- Likely to accept the offer

- Neither likely nor unlikely to accept the offer
- Unlikely to accept the offer

Section 6. Impact of COVID-19 Pandemic [Only for Rs who participated in FY 2020-21]

The next questions focus on how the Coronavirus Disease 2019 (COVID-19) may have affected your internship experiences and subsequent career plans.

6-1. Did you experience any of the following as a result of the COVID-19 pandemic?

Select all that apply.

- The timeline for completing my internship changed
- Host location became inaccessible
- The project switched to virtual status
- Research project was disrupted or research goals changed
- I was personally impacted which caused an interruption
- None of the above
- Other (please specify)

6-2. Did you experience any change in career plan as a result of the COVID-19 pandemic?

Select all that apply.

- The timeline for completing my doctoral degree changed
- My research was disrupted
- Funding for my doctoral studies was reduced or suspended
- My immediate postgraduate employment or education plans changed
- My longer term career plans or goals changed (e.g. type of employer, research focus, career goals)
- None of the above
- Other (please specify)

Section 7. Basic Demographic Information

This section asks information pertaining to gender, race, ethnicity, disability, and veteran status. Responses are voluntary and optional

7-1. What is your sex? (Mark one answer)

- Male
- Female
- Prefer not to answer

7-2. Are you of Hispanic, Latino, or Spanish origin? (Mark one answer)

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican American, or Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin
- Prefer not to answer

7-3. What is your race? (Select all that apply)

- American Indian or Alaska Native
- Native Hawaiian or other Pacific Islander
- Asian
- Black or African American
- White
- Prefer not to answer

7-4. The following questions are designed to help us better understand the educational and/or career paths of individuals with specific functional limitations. What is the USUAL degree of difficulty you have with...

Select one in each row.

	NONE	SLIGHT	MODERATE	SEVERE	UNABLE TO DO
SEEING words or letters in ordinary newsprint (with glasses/contact lenses, if you usually wear them)					
HEARING what is normally said in conversation with another person (with hearing aid, if you usually wear one)					
WALKING without human or mechanical assistance or using stairs					
LIFTING or carrying something as heavy as 10 pounds, such as a bag of groceries					

CONCENTRATING, REMEMBERING, or MAKING DECISIONS because of a physical, mental or emotional condition					
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7-5. Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?

Select one.

- Never served in the military
- Only on active duty for training in the Reserves or National Guard
- Currently on active duty
- On active duty in the past, but not now

Section 8. Comments/Feedback about the Program

We love to hear from you! Tell us what we could do to continuously improve the Program.

8-1. Was the stipend provided by the NSF INTERN program sufficient to cover living expenses (including room, board, insurance, and/or travel expenses)?

- Yes
- No

8-2. How likely would you recommend the NSF INTERN Program to others?

- Highly likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Highly unlikely

8-3. Share with us a memorable moment you would like us to know about your internship experience.

8-4. Please describe areas where we can improve on the NSF INTERN Program.

